

Table Effect of centrifugation and filtration on the retention of virulence of *Treponema pallidum* (Nichols strain)

Incubation period (hours) before inoculation	No centrifugation/no filtration		Centrifugation only		Centrifugation/filtration (Millipore)		Centrifugation/filtration (Nucleopore)		Centrifugation/filtration (Millipore and Nucleopore)	
	A (days)	B (mm)	A (days)	B (mm)	A (days)	B (mm)	A (days)	B (mm)	A (days)	B (mm)
0	7.5	ND	9.5	ND	7.7	ND	8.7	ND	9.5	ND
24	11.5 (2/4)	3.5 (2/4)	9.5	8.8	13	9.8	11.7	14	11	14.5
48	16 (3/4)	3 (3/4)	14.7	6.5	14.7	6.7	13.7	10.8	13.7	12

A = time period (days) between intradermal inoculation of *T. pallidum* into rabbit and first appearance of syphilitic lesion. The smaller the value, the more readily the *T. pallidum* has grown *in vivo* and, by implication, the better its survival *in vitro*. The number in parenthesis represents the fraction of inoculation sites that developed syphilitic lesions; a value of <4/4 means that some inoculations were unsuccessful; the absence of a value means all four inoculations were successful, the value reported being the mean of four lesions.

B = the mean size of four lesions, except where fewer lesions developed (in parenthesis), measured 33 days after inoculation as the diameter of induration. ND = not done

10^7 /ml, centrifuged at $55 \times g$ for five minutes, and filtered through a prefilter (Millipore AP2002500) or a $0.8\text{-}\mu\text{m}$ polycarbonate membrane (Nucleopore) or both. The final filtrate was examined microscopically and appeared to contain no host cells. All *T. pallidum* samples for testing were diluted into prereduced maintenance medium (1/20), incubated anaerobically at 34°C , and examined microscopically over a 48-hour period to determine the percentage motility of the treponema suspension. Samples (0.5 ml) were taken at 0, 24, and 48 hours and diluted 1/1 with 20% glycerol in physiological saline. These were stored at -70°C until the completion of the experiment and then inoculated (in quadruplicate) into the shaved backs of rabbits (0.1 ml/site). A different rabbit was used for samples taken at 0, 24, and 48

hours. Rabbits were examined daily for up to one month and the first day of appearance of an indurated lesion was recorded.

No difference in motility retention was detected in any sample over the 48-hour period. However, other variables measured (that is, number of inoculation sites developing into syphilitic lesions, latent period of infection, and size of syphilitic lesions) all showed that the centrifuged and filtered extracts were in no way inferior to the crude untreated extract (Table). In fact, the extracts centrifuged and filtered through a Nucleopore filter, $0.8\text{-}\mu\text{m}$ with or without a Millipore prefilter, were apparently superior to the crude extract with respect to virulence. Latent periods of infection were shorter and lesion sizes larger.

In conclusion, centrifugation and

filtration of the crude rabbit testicular syphiloma extract appears to enhance the retention of virulence of *T. pallidum* *in vitro*, presumably by the removal of testicular debris that is deleterious to treponemal survival.

We wish to thank Ian McLean for his technical assistance.

Yours faithfully,

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References

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TO THE EDITOR, *British Journal of Venereal Diseases*

Campylobacter jejuni in a male homosexual

Sir,
Following the recent letter by Simmons and Tabaqchali (1979), we should like to describe the isolation of *Campylobacter jejuni* from a male homosexual.

A 36-year-old man presented in July 1978 at the Seaman's Dispensary, Liverpool, having noticed pus around the faeces for the preceding three weeks but no diarrhoea. He last had rectal intercourse in January of that year. The only significant clinical finding was slight congestion of the rectal mucosa.

Neisseria gonorrhoeae was neither seen on Gram-stained rectal smear nor isolated

from rectal culture. However, *C. jejuni* was isolated on selective medium from the faeces using a similar technique to that described by Simmons and Tabaqchali (1979). Further smears and culture for *N. gonorrhoeae* four days later gave negative results.

In view of the clinical signs the patient was treated with oral erythromycin 250 mg six hourly for one week. After that time the patient was seen again, and he informed us that the faeces had returned to normal. On proctoscopy there was marked improvement of the rectal congestion. Faecal specimens at this time, and all subsequent specimens, failed to yield *C. jejuni*. After a further week the rectal mucosa was healthy.

This case further emphasises the need to examine specimens of faeces for enteric

pathogens from any patient presenting with abnormal bowel symptoms.

Yours faithfully,

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Reference

- Simmons, P. D., and Tabaqchali, S. (1979). *Campylobacter* species in male homosexuals. *British Journal of Venereal Diseases*, 55, 66.